



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.														
10/753,249	01/08/2004	Kevin P. Klubek	86973RLO	6740														
7590 Pamela R. Crocker Patent Legal Staff Eastman Kodak Company 343 State Street Rochester, NY 14650-2201		09/11/2007	<table border="1"><tr><td colspan="2">EXAMINER</td></tr><tr><td colspan="2">GARRETT, DAWN L</td></tr><tr><td>ART UNIT</td><td>PAPER NUMBER</td></tr><tr><td>1774</td><td></td></tr><tr><td colspan="2"><table border="1"><tr><td>MAIL DATE</td><td>DELIVERY MODE</td></tr><tr><td>09/11/2007</td><td>PAPER</td></tr></table></td></tr></table>		EXAMINER		GARRETT, DAWN L		ART UNIT	PAPER NUMBER	1774		<table border="1"><tr><td>MAIL DATE</td><td>DELIVERY MODE</td></tr><tr><td>09/11/2007</td><td>PAPER</td></tr></table>		MAIL DATE	DELIVERY MODE	09/11/2007	PAPER
EXAMINER																		
GARRETT, DAWN L																		
ART UNIT	PAPER NUMBER																	
1774																		
<table border="1"><tr><td>MAIL DATE</td><td>DELIVERY MODE</td></tr><tr><td>09/11/2007</td><td>PAPER</td></tr></table>		MAIL DATE	DELIVERY MODE	09/11/2007	PAPER													
MAIL DATE	DELIVERY MODE																	
09/11/2007	PAPER																	

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

## Office Action Summary

Application No.

10/753,249

Applicant(s)

KLUBEK ET AL.

Examiner

Dawn Garrett

Art Unit

1774

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 26 July 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-12, 14-28 and 30-33 is/are pending in the application.
- 4a) Of the above claim(s) 15-17 and 31-33 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-12, 14, 18-28 and 30 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 21 June 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- ☐ Notice of Informal Patent Application
- ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Response to Amendment***

1. This Office action is responsive to the amendment filed July 26, 2007. Claims 1, 2, and 18 were amended. Claims 13 and 29 were cancelled. Claims 15-17 and 31-33 are withdrawn.
2. The rejection of claims 1-9, 13, 14, 18-25, 29 and 30 under 35 U.S.C. 103(a) as being unpatentable over Oh et al. (US 2003/0118866 A1) is withdrawn due to the amendment.

### ***Claim Rejections - 35 USC § 112***

3. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

4. Claims 1-12, 14, 18-28, and 30 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. It is not seen where the specification sets forth or describes a dopant "wherein the dopant produces...light without producing substantial components of red light" as set forth in amended claims 1, 2, and 18. Accordingly, the limitation is considered to be new matter.

Claims 9, 10, 25, and 26 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter

Art Unit: 1774

which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. The specification does not enable one to determine which coumarin derivatives are suitable and which are not suitable for having a "substantial components of red light".

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claims 1-12, 14, 18-28, and 30 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Independent claims 1, 2, and 18 set forth a dopant "wherein the dopant produces....light without producing substantial components of red light".

a) It is not understood what is meant by "components" of red light. It would appear that red light would be emitted at a particular and specific wavelength. The specification does not provide a definition or clarification with respect to "components of red light".

b) The term "substantial" in claims 1, 2, and 18 is a relative term, which renders the claim indefinite. The term "substantial" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention.

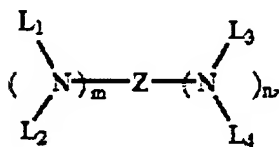
Art Unit: 1774

**Claim Rejections - 35 USC § 103**

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 1-12, 14, 18-28, and 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Oh et al. (US 2003/0118866 A1) in view of Chen et al. (US 2004/0247937 A1). Oh et al. discloses organic electroluminescent devices comprising a light emitting layer having at least two host materials and a guest material disposed between two electrodes (see abstract). One of the hosts may comprise the following compound (see par. 29)



wherein m or n may be zero (m+n is 1 to 8; see par. 30). Z is A1 wherein A1 can be a substituted aromatic hydrocarbon group (see par. 31-32). This teaching includes a compound according to the formula shown in present claims 14 and 30. Oh et al. further teaches a preferred host material is a quinoline derivative (see par. 36 and par. 80) with respect to applicant's elected second host material and present claims 5, 6, 21 and 22. Oh et al. fails to exemplify a device comprising the *specific* compound of applicant's elected first host compound with the second host compound. It would have

Art Unit: 1774

been obvious to one of ordinary skill in the art at the time of the invention to have selected the host materials of the instant claims for the light emitting layer of a device, because Oh et al. generally teaches all of the required compounds for the light emitting layer. Because the same compounds are taught as disclosed by applicant, the bandgap properties set forth in the claims are considered to be inherent.

With respect to claims 3, 4, 7, 8, 19, 20, 23 and 24, Oh et al. teaches the light emitting layer comprises 0.01-30 wt % of guest material, 0.05-99.9wt% of the first host and 0.05-99.9wt% of the second host (see par. 59).

With respect to claims 9, 13, 25 and 29, Oh et al. discloses coumarin derivatives as guest material (see par. 47).

Oh et al. teaches guest materials such as coumarin derivatives are suitable (see par. 47), but fails to specifically mention quinacridone compounds as guest material or *specific* coumarin derivatives such as C-545T (which is presumed to satisfy applicant's limitation that there is not "substantial components of red light" emitted by the dopant since the specific coumarin is recited in the claims). Chen et al. teaches, in analogous art, luminescent dyes for the luminescent layer of an OLED including specific coumarin derivative "C545T" and quinacridone derivatives (see par. 79). It would have been obvious to one of ordinary skill in the art at the time of the invention to have selected either a quinacridone dye (QA) or C545T as the guest material of the Oh et al. device, because Oh et al. teaches a fluorescent material such as coumarin derivatives is desirable as the guest material of the light emitting layer of the device.

***Response to Arguments***

9. Applicant's arguments filed July 26, 2007 have been fully considered but they are not persuasive.

Applicant's amendment has not distinguished the claimed devices from the prior art. Also, as stated above, the phrase "without producing substantial components of red light" is considered new matter. Additionally, applicant's argument that Oh et al. is drawn to red-emitting devices is not persuasive. It is obvious to one of ordinary skill in the art to select dopants in order to achieve a desired color output. The examiner notes that the prior art teaches all of the required materials of the claimed device and it would be obvious to select these components for a device as they are known compounds and a combination of the taught components would provide a predictable result of an operational light emitting device.

The examiner submits that the prior art discloses all of the same known materials required by applicant's device. Applicant is not claiming any new fluorescent dopant compounds. Furthermore, fluorescent dyes are well known functional equivalents of one another and are selected based upon a desired color output. Desired color output from the well known fluorescent dyes can be achieved with minimal experimentation. In addition, if applicant is merely combining known compounds and using those known materials for purposes for which those materials are known to be useful, then the combination is not patentable absent a showing of unexpected results. Furthermore, it is not required that the prior art disclose or suggest the properties newly-discovered by an applicant in order for there to be a prima facie case of obviousness. See *In re Dillon*,

Art Unit: 1774

919 F.2d 688, 16 USPQ2d 1897, 1905 (Fed. Cir. 1990). Moreover, as long as some motivation or suggestion to combine the references is provided by the prior art taken as a whole, the law does not require that the references be combined for the reasons contemplated by the inventor. See *In re Beattie*, 974 F.2d 1309, 24 USPQ2d 1040 (Fed. Cir. 1992); *In re Kronig*, 539 F.2d 1300, 190 USPQ 425 (CCPA 1976) and *In re Wilder*, 429 F.2d 447, 166 USPQ 545 (CCPA 1970).

Applicant alleges their device provides non-red producing device structures with improved stability. Combination of known compounds and the use of those known materials for purposes for which those materials are known to be useful is not patentable absent a showing of unexpected results. Per M.P.E.P. § 2145, the arguments of counsel cannot take the place of evidence in the record. *In re Schulze*, 346 F.2d 600, 602, 145 USPQ 716, 718 (CCPA 1965); *In re Geiseler*, 116 F.3d 1465, 43 USPQ2d 1362 (Fed. Cir. 1997).

Applicant has submitted no persuasive evidence that the combination of the device elements is no more than the predictable use of prior art elements according to their established functions resulting in the simple substitution of one known element for another or the mere application of a known technique to a piece of prior art ready for improvement. *Ex Parte Smith*, 83 USPQ2d 1509.



***Conclusion***

10. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dawn Garrett whose telephone number is 571-272-1523. The examiner can normally be reached on Monday through Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Milton Cano can be reached on 571-272-1398. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 1774

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



DAWN GARRETT  
PRIMARY EXAMINER  
ART UNIT 1774